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AND 13
9/12/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Mitsuaki OSHIMA et al.

Serial No. 09/672,946

Filed September 29, 2000

COMMUNICATION SYSTEM

Attn: **BOX RCE**

Docket No. 2000_1328

Group Art Unit 2634

Examiner A. Le

Confirmation No. 7022

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AUG 29 2003

Technology Center 2600

AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

THE COMMISSIONER IS AUTHORIZED
TO CHARGE ANY DEFICIENCY IN THE
FEES FOR THIS PAPER TO DEPOSIT
ACCOUNT NO. 23-0975

Sir:

In response to the Office Action mailed May 27, 2003, please amend the application as follows.

IN THE SPECIFICATION:

Please replace the specification and abstract with the attached substitute specification and abstract.

IN THE CLAIMS:

Please cancel claims 19-30 and add new claims 31-39 as follows.

31. A signal transmission and receiving apparatus comprising a transmission apparatus and a receiving apparatus,

said transmission apparatus comprising:

- a mapper operable to map a first data stream to a 2-level mapped signal having two levels separated by a first amount, and to map a second data stream to an 8-level mapped signal having eight

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